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**WATER SUPPLY OUTLOOK
FOR
NEVADA**

JAN 14 1975

SOIL CONSERVATION SERVICE
CURRENT SERIAL RECORDS



U. S. DEPARTMENT of AGRICULTURE ★ SOIL CONSERVATION SERVICE

Collaborating with

**NEVADA DEPARTMENT of CONSERVATION
and NATURAL RESOURCES
DIVISION of WATER RESOURCES**

Data included in this report were obtained by the agencies named above in cooperation with Federal, State and private organizations listed inside the back cover of this report.

AS OF
JAN. 1, 1975

TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

*Cover Photo: Cabins near Sacajawea Snow Course
in Bridger Mountains, Montana.*

SCS PHOTO 11-P480-15

PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, West Technical Service Center, Room 111, 511 N.W. Broadway, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	204 E. 5th. Ave., Room 217, Anchorage, Alaska 99501
Arizona	6029 Federal Building, Phoenix, Arizona 85025
Colorado (N. Mex.)	P. O. Box 17107, Denver, Colorado 80217
Idaho	Room 345, 304 N. 8th. St., Boise, Idaho 83702
Montana	P. O. Box 98, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno Nevada 89505
Oregon	1218 S. W. Washington St., Portland, Oregon 97205
Utah	4012 Federal Bldg., 125 South State St., Salt Lake City, Utah 84138
Washington	360 U.S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 2440, Casper, Wyoming 82601

PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Water Supply Forecast and Snow Surveys Unit, California Department of Water Resources, P. O. Box 388, Sacramento, California 95802 --- and for British Columbia by the Department of Lands, Forests and Water Resources, Water Resources Service, Parliament Building, Victoria, British Columbia



WATER SUPPLY OUTLOOK FOR NEVADA

JANUARY 1 SNOW SURVEYS SHOW THE SNOWPACK IS 50 PERCENT BELOW AVERAGE ALONG THE EASTERN SLOPE OF THE SIERRA NEVADA MOUNTAINS.

IN THE EASTERN PART OF THE STATE, SNOWPACK IS ABOVE AVERAGE. THE JARBIDGE MOUNTAINS NORTH OF ELKO HOLD 125 PERCENT OF AVERAGE SNOWPACK; THE RUBY MOUNTAINS SOUTH OF ELKO CONTAIN 134 PERCENT OF AVERAGE SNOW.

RESERVOIR STORAGE THROUGHOUT THE STATE REMAINS HIGH AND IS NOW AT 125 PERCENT OF AVERAGE.

The Tahoe-Truckee Basin contains only 46 percent of average snow. Farther south in the Sierra Nevada, the snow in the Carson-Walker drainage is 60 percent of normal. Even if average precipitation continues throughout the winter, the natural streamflow from these areas will be about 35 percent below average. Water supplies on controlled streams will be better, resulting from high reservoir holdover.

Irrigation supplies along the Humboldt should be adequate from both above average snowpack and reservoir storage.

Numerical forecasts are not issued at this time since only about 40 percent of the winter snowpack has been received, and only a limited number of snow courses are measured.

Monthly forecasts will begin on February 1 when over half of the maximum snowpack has accumulated.

Soil moisture throughout the state is below normal.

If these conditions prevail, ski resorts will continue to be in trouble, skiers will be unhappy, and Nevada will receive a shortage of water from the Sierra Nevada Mountains this spring.

SNOW COURSE MEASUREMENTS

DRAINAGE BASIN and/or SNOW COURSE NAME	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (inches)	Water Content (inches)	Last Year	Average †
<u>OWYHEE RIVER</u>					
Big Bend	1/2	16	3.7	5.9	3.0 *
Gold Creek	1/2	11	2.0	3.9	1.9 *
Taylor Canyon	1/2	16	2.6	2.6	1.8 *
<u>HUMBOLDT RIVER</u>					
Fry Canyon	1/2	19	4.2	4.9	3.0 *
Rodeo Flat	1/2	20	4.0	4.8	2.6 *
Tremewan Ranch	1/2	4	0.4	1.4	0.8
<u>LAKE TAHOE-TRUCKEE RIVER</u>					
Donner Summit	1/3	34	10.5	23.1	-
Fordyce Lake	1/2	31	11.4	26.4	-
Freel Bench	1/2	6	1.4	8.4	6.3 *
Furnace Flat	1/2	42	14.7	28.3	-
Glenbrook #2	12/31	11	2.9	5.2	4.3 *
Hagans Meadow	1/2	22	4.7	10.8	8.3 *
Heavenly Valley	1/1	33	7.8	15.2	-
Independence Camp	12/26	10	3.1	10.6	-
Independence Creek	12/26	5	1.3	7.3	-
Independence Lake	12/26	28	8.6	-	-
Marlette Lake	12/26	24	5.9	12.6	-
Mount Rose Ski Area	12/31	50	12.9	25.2	-
Richardsons #2	1/1	18	3.5	8.9	-
Squaw Valley #2	12/26	32	9.3	18.4	-
Sage Hen	12/26	7	1.9	-	-
Tahoe City	**			-	-
Tahoe City Alternate	**			7.1	-
Tahoe City Cross	12/31	21	5.0	11.2	-
Upper Truckee	1/2	8	1.9	7.2	5.0 *
Ward Creek #2	12/26	21	6.9	24.0	15.0 *
Ward Creek #3	12/26	20	5.9	20.5	-
<u>CARSON-WALKER RIVERS</u>					
Ebbetts Pass	1/2	50	13.2	-	-
Poison Flat	1/2	20	3.8	-	-
Sonora Pass	1/2	31	6.7	13.3	9.5 *
Virginia Lakes	1/2	17	3.2	6.7	6.9 *
Virginia Lakes Ridge	1/2	25	5.2	8.5	-
Wet Meadows Lake	1/2	27	6.7	-	-
<u>SNAKE RIVER</u>					
Bear Creek	12/29	38	10.4a	9.2	7.8 *
Goat Creek	12/29	36	9.8a	8.3	6.4 *
Hummingbird Springs	12/29	31	8.7a	10.8	7.6 *
Pole Creek Ranger Station	12/29	42	11.5	9.7	7.7 *
Red Point	12/29	10	2.8a	1.6	4.4 *
76 Creek	12/29	21	5.9a	8.1a	

** Destroyed by snowmobile traffic

NOTE:
All averages based on 1958-72, 15 year period. Forecast period is April 1 through July 31 unless otherwise noted.
a-Aerial marker, water content estimated. * 1958-72 adjusted average

PEAK FLOWS (MAXIMUM MEAN DAILY) (Av. flow for 24 hrs. on day of greatest flow)

FORECAST POINT	PEAK FLOW (SECOND FEET)	
	Forecast Range	Average †
Peak flow forecasts not issued until March 1, 1975		

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Low flow forecast not issued until March 1, 1975			

SOIL MOISTURE MEASUREMENTS

STATION	Profile (Inches)		Soil Moisture (Inches)		
	Depth	Capacity	Date	This Year	Average †
<u>OWYHEE-HUMBOLDT BASIN</u>					
Big Bend	48	16.7	1/2	13.5	14.5
Rodeo Flat	42	11.0	1/2	4.8	9.1
Taylor Canyon	48	15.1	1/2	7.7	11.8
<u>TAHOE-TRUCKEE BASIN</u>					
Independence Camp	34	6.1	12/26	3.0	3.6 *
Marlette Lake	50	3.7	12/26	1.8	2.0 *
<u>WALKER BASIN</u>					
Sonora Pass	48	8.3	1/2	5.7	6.7 *
Virginia Lakes	40	5.0	1/2	1.9	2.0 *
* Adjusted average					

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Agencies Cooperating in Collecting Data Contained in this Bulletin

FEDERAL

- Agricultural Research Service
- Bureau of Reclamation
- Fish and Wildlife Service
- Forest Service
- Geological Survey
- Navy
- Sail Conservation Service
- U. S. District Court - Federal Water Master
- NOAA, National Weather Service

STATE

- California Cooperative Snow Surveys
- California Department of Parks and Recreation
- California Department of Water Resources
- Calarada River Cammission of Nevada
- Idaha Cooperative Snow Surveys
- Nevada Association of Conservation Districts
- Nevada Department of Conservation & Natural Resources
 - Division of Water Resources
 - Nevada State Forester
- Oregan Caaperative Snow Surveys
- Utah Caaperative Snow Surveys
- White Mountain Research Station, Univ. of California

PRIVATE

- Amalgamated Sugar Company
- Kennecott Copper Corporation
- Nevada Irrigation District
- Owyhee Project North Board of Control
- Owyhee Project South Board of Control
- Pacific Gas and Electric Company
- Pershing County Water Conservation District
- Sierra Pacific Power Company
- Truckee-Carson Irrigation District
- Walker River Irrigation District
- Washoe County Water Conservancy District

Other organizations and individuals furnish valuable information for the snow survey reports. Their Cooperation is gratefully acknowledged.

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

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*"The Conservation of Water begins
with the Snow Survey"*